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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,265	02/16/2004	James W. Rudolph	4865 / 134	2216

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Helen A. Odar-Barley Snyder
PO Box 1559
Lancaster, PA 17608-1559

EXAMINER

CHEN, BRET P

ART UNIT	PAPER NUMBER
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1762

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/780,265	Applicant(s) RUDOLPH ET AL.	
	Examiner B. Chen	Art Unit 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/3/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) 1-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 34-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-54 are pending in this application. Amended claims 34, 42 and newly added claims 47-54 are noted.

The amendment dated 11/3/06 has been entered and carefully considered. The examiner appreciates the amendments to the claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 50 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 50, the newly added limitation of “wherein the gas flowing through the channel has a second flow rate less than 10% of the first flow rate” is deemed new matter as there appears to be no support for such a limitation. It is noted in paragraph 38 of the specification requires that the flow rate is less than 10% of the total reactant gas.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 52-54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 52-54 are the same as claims 47-49 as thus is confusing and redundant. The examiner has assumed that claims 52-54 are dependent on independent claim 42 and has treated those claims as dependent on claim 42. Appropriate amendments are requested.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 34, 35, 38, and 42-45 are rejected under 35 U.S.C. 102(e) as being anticipated by Daws et al. (2003/0035893) for the reasons listed in the previous office action.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Claims 34, 35, 38, and 42-45 are rejected under 35 U.S.C. 102(e) as being anticipated by Christin et al. (5,904,957) for the reasons listed in the previous office action.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 36, 37, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daws et al. (2003/0035893) or Christin et al. (5,904,957) for the reasons listed in the previous office action.

In newly added claims 47-54, the applicant requires specific pressures and percentages. It would have been obvious to one having ordinary skill in the art to have determined the optimum value of a cause effective variable such as pressure and percentages through routine experimentation in the absence of a showing of criticality.

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Claims 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daws et al. (2003/0035893) in view of Golecki et al. (5,348,774) for the reasons listed in the previous office action.

Response to Arguments

Applicant's arguments filed 9/14/06 have been fully considered but they are not persuasive.

Applicant first argues that the pressure differential in paragraph 4 of Daws refers to the difference between the inlet and outlet ducts of the furnace and not between the stack pressure and the volume pressure (p.6 first full paragraph).

The examiner agrees in part. It is first noted that claim 34 requires a pressure gradient between the enclosed cavity (80 in Figure 1) and the outer volume (82 in Figure 1). Nowhere in the instant claims is the pressure gradient measured between a stack pressure and a volume pressure. Hence, the applicant's arguments are not commensurate in scope with the instant claims as presently written.

Secondly, while Daws specifically refers to the pressure gradient between the inlet and outlet ducts of the furnace, Daws clearly recites the flow of gas from axial hole 28 to the hardware assembly inlet opening 53 and flows to the outer diameter 26 of the distributor 24 (paragraph 30 and Figures 5-6). By definition, a pressure gradient is "movement caused by a differential in pressure between two different areas." One skilled in the art knows that flow of gas occurs if there is a pressure differential. Simply put, if there is gas flow, there is a pressure differential, and hence a pressure gradient.

Applicant next argues that the pressure gradient in the claimed process is more than just an insignificant amount (p.6 second paragraph).

The examiner disagrees. It is first noted that the independent claims do not recite any specific pressure gradient. Hence, the applicant's arguments are not commensurate in scope with the instant claims as presently written. If the applicant were to amend the claims to recite a specific pressure gradient and provide factual evidence establishing criticality of said gradient, the examiner will consider withdrawing the present art rejection.

Applicant next argues that Christin teaches a pressure balance between an inside portion of the stack and an outside portion (p.7 first paragraph).

The examiner agrees in part. It is the examiner's position that Christin's pressure balance is not clear as to what pressure is being referred to. As mentioned above, the flow of gas always occurs from a higher pressure to a lower pressure. It is the examiner's position that since the flow of gas occurs, there must inherently be a pressure gradient.

Applicant next argues that Daws and Christin do not teach a single cycle pressure gradient CVI/CVD process (pp.7-8).

The examiner agrees in part. While the examiner does not take issue with this, it is noted that the independent claims do not preclude multiple steps. Hence, the applicant's arguments are not commensurate in scope with the instant claims as presently written.

Applicant's arguments have been considered but are not deemed persuasive.

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to B. Chen whose telephone number is (571) 272-1417. The examiner can normally be reached on 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bc
2/26/07


BRET CHEN
PRIMARY EXAMINER